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Spinoff

Using Remote Sensing In Real Estate

NASA's Commercial Remote Sensing Program (CRSP) at Stennis Space Center (SSC) was enlisted by a local realty company to develop a computerized way of showing property to prospective buyers. Using information provided by the realty company, CRSP created a detailed digital mapping system of the Diamondhead, Mississippi, area, showing numerous characteristics of developed and undeveloped land. The mapping system created allows realtors to present various aspects of a property to buyers without ever leaving the office.

Remote sensing systems employ sensors that are either ground-based or mounted on aircraft and spacecraft to look at the Earth; ground-based sensors look out over the horizon, while air and space based systems look down on the Earth's surface. The pictures or imagery acquired from these systems are then combined with related information to produce maps, track weather events, measure terrain, monitor agriculture and urban infrastructure, and create databases. For the realty project, CRSP collected remotely sensed imagery over Diamondhead—primarily using airborne sensors—and then entered the imagery into a computer mapping system. The imagery was then referenced to the geographic location in Diamondhead and interpreted by CRSP to identify specific geographic information, such as potential flood areas, percent of shade on the lot, setback distance between the street and the house, visibility from a particular house, areas of interest in a neighborhood, and sites of houses, stores, developments and retail areas.

"The connection between satellite remote sensing and real estate is natural," said Richard Campanella, a remote sensing/geographic information systems (GIS) specialist with Lockheed Martin at Stennis. "People looking for real estate become geographers. So an airborne or satellite image is a natural way to communicate geographic information."

According to Cliff Holle, another GIS specialist with Lockheed Martin, the information products this technology offers allows the industry to provide more services to clients. Holle stated that the remote sensing information obtained during this project has many other applications outside of the real estate industry. For example, insurance underwriters, engineering firms, local/municipal government, investors and emergency planners can use the information to determine risk, build a road, create a base map, site a shopping mall, and plan emergency evacuation routes.

The CRSP is an element of the Office of Mission to Planet Earth. This article was excerpted from NASA press release 97-16, written by Lanee Cobb, SSC.